

The Genus *Rhopalimorpha* Dallas (Hemiptera-Heteroptera) with a Description of a New Species.

By J. G. PENDERGRAST, St. Heliers.

In recent years the consensus of opinion has been that the genus *Rhopalimorpha* Dallas is represented by only two species, *R. obscura* White (New Zealand and the Chatham Islands) and *R. humeralis* Walker (Queensland). *R. similis* Mayr has long been regarded as a synonym of *R. obscura*. Buchanan White (1878) wrote: "*R. similis* Mayr is, I feel pretty sure, the same as *obscura* White." Mayr (1866) listed certain differential characters for distinguishing *R. similis* from *R. obscura*. On inspection these are found to apply equally well to the latter species. In his description of *similis* Mayr (1866) noted that the scutellum had "eine feine Endspitze." As will be seen below, the possession of an acute apex to the scutellum is an important characteristic of *R. obscura*. Similarly, *R. ignota* Hutton has proved to be synonymous with *obscura*. After examination of the type Myers (1924) stated: "The writer is of the firm opinion that *R. ignota* is admissible not even as a constant colour variety." And, further, "After examining some hundreds of specimens from widely separated localities the present writer feels sure that there is only one species, and that this is surprisingly constant in structural characters." Through the courtesy of Mr. R. R. Forster, of the Canterbury Museum, the author has been able to examine the type of *R. ignota* and agrees with Myers that this is synonymous with *R. obscura*.

While working on the anatomy and life history of *R. obscura* it became apparent to the writer that two species were present in his collections. Dr. W. E. China, of the British Museum, was kind enough to examine the collection of that institution and agreed that there were two species involved. Writing to Dr. T. E. Woodward of the Auckland University College, he said: ". . . there are two species involved. These can be distinguished in both sexes most easily by the apex of the scutellum which is pointed in one and rounded in the other. The ♀ type of *R. obscura* White has the pointed apex of the scutellum and this is the species which is most abundantly represented in our collection."

Because of the lack of a generic description (Dallas, 1851, provides only an almost worthless key) and the inadequacy of the descriptions of *R. obscura* and *R. humeralis*, it is felt that the genus and these species should be redescribed and it is hoped to make this the subject of a future paper.

FAMILY PENTATOMIDAE.

SUB-FAMILY ACANTHOSOMATINAE.

Genus RHOPALIMORPHA Dallas, 1851.

1. *Rhopalimorpha obscura* A. White, 1851.*Rhopalimorpha similis* Mayr, 1864.*Rhopalomorpha similis* Mayr, 1866.*Rhombocoris similis* (Mayr) Hutton, 1874.*Rhopalimorpha ignota* Hutton, 1898.2. *Rhopalimorpha humeralis* Walker, 1867.3. *Rhopalimorpha lineolaris* sp. nov. (Figs. 2, 3, 4).*Rhopalimorpha obscura* White. Myers, 1926 (*partim*).**Length:** Female, 8.0-8.5mm. Male, 6.5-7.5mm.**General Colour:** Dorsally usually mahogany-brown, frequently green-brown, sometimes brick-red; ventrally lighter except as detailed.**Head:** Dorsally, coarsely punctured with black except for smooth band in mid-line marked with white posteriorly; tylus bordered with deep black clefts, anterior extremity prominent and rounded; lateral jugal margins raised and white. Ventrally smooth and glossy except for gula and few punctures on gena; gula roughened and slightly pubescent; maxillary plate with conspicuous tooth-like projection with flat dorsal surface; rostrum reaching intermediate coxae; antennae slender, reddish-amber, fifth and distal half fourth segment dark brown, joint between second and third segments inconspicuous, second scarcely longer than third (1.05: 1.00); eyes dark purple; ocelli bright red.**Thorax:** Pronotum and scutellum coarsely punctured except on callus areas and on smooth median band marked with light stripe; pronotal margins white or buff; scutellum apex light coloured, broad, non-acute; hemi-elytron fairly broad, corium green-brown, membrane buff, nervures light brown; scent gland orifice bordered above by conspicuous dark brown plate marked with white dorsally; mesothoracic carina small but more prominent than in *obscura*; femur dark brown with black punctures, remainder of leg dark amber.**Abdomen:** Somewhat swollen; connexivum inconspicuous, marked with black in each segment; venter dark brown mesially, lighter towards edges; ventral spine broad, extending almost to intermediate coxae.**Female:** Sixth sternum marked with pair of conspicuous dark circular setose patches; valves covering genital opening making up flat circular area; seventh sternum with broad low median keel.

Male: Ninth segment or pygophor with slightly concave ventral posterior margin bearing single median patch of long bristles.

Types: All collected Orakei, Auckland, 8/7/50. Host plant: *Carex longifolia*. Holotype ♀ and allotype ♂ deposited in Auckland War Memorial Museum. One pair (♀ and ♂) of paratypes deposited in Dominion Museum, Wellington, Canterbury Museum, Christchurch, and Otago Museum, Dunedin.

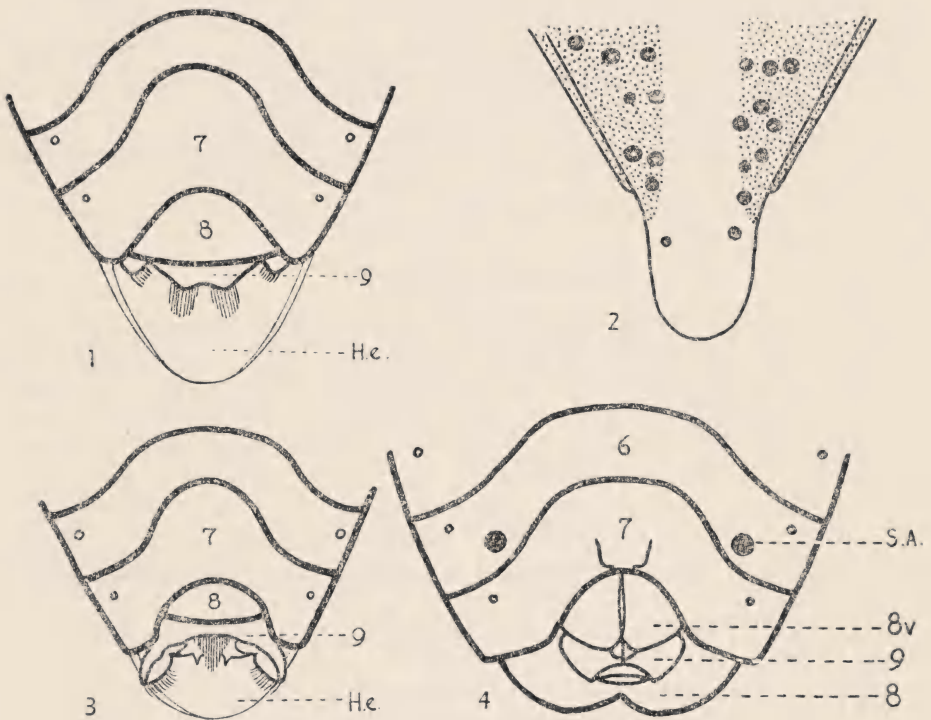


Fig. 1. *Rhopalimorpha obscura* White. Male. Ventral view posterior abdominal segments.

Fig. 2. *Rhopalimorpha lineolaris* sp. nov. Male. Ventral view posterior abdominal segments.

Fig. 3. *Rhopalimorpha lineolaris* sp. nov. Female. Ventral view posterior abdominal segments.

Fig. 4. *Rhopalimorpha lineolaris* sp. nov. Apex of scutellum.

REFERENCE LETTERING.

H.e.—Hemi-elytron.
S.A.—Setose area.

6-9.—Abdominal sterna.
8v.—Valves enclosing vulva.

This species can be distinguished from *R. obscura* White chiefly by the non-acute apex of the scutellum, the genitalia and the somewhat swollen abdomen lacking a definite connexivum. There are other less

obvious distinguishing characters, such as the punctured femora, the large plate marking the orifice of the scent gland, the more conspicuous tooth-like projections from the maxillary plate and the more definite mid-dorsal stripe on head and thorax. In addition, certain differences in the internal structure have been noted, chief of which is the number of ovarioles in each ovary. In *R. lineolaris* the number is four, while in *R. obscura* it is seven, as is usual in the Pentatomidae.

Preliminary investigations have shown that *R. lineolaris* probably has a very similar distribution to that of *R. obscura* in New Zealand, i.e., over the greater part of both main islands. Around Auckland, individuals of both species are frequently found living together on the same plant. In the Auckland area the main food plants are *Carex longifolia*; *C. divulsa*; *Juncus effusus*; *Mariscus ustulatus*; and the Cocksfoot grass, *Dactylis glomerata*.

The life history of both species is at present being investigated and differences in the nymphs of the two species have been discovered. It is intended to describe these in a later paper.

ACKNOWLEDGMENTS.

Mention has already been made of the writer's indebtedness to Dr. China, of the British Museum and to Mr. Forster, of the Canterbury Museum. In conclusion the writer would gratefully acknowledge the valuable advice and helpful criticism of Dr. T. E. Woodward, of the Zoology Department, Auckland University College, under whose supervision the work has been carried out.

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